Executive Summary
Substitute Environmental Document
Basin Plan Amendment
San Jacinto - Upper Pressure Groundwater Management Zone
Total Dissolved Solids and Total Inorganic Nitrogen Objectives

Prepared for:

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Executive Summary

Introduction

Eastern Municipal Water District (EMWD) has applied to the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) for a Basin Plan Amendment (BPA) for the San Jacinto – Upper Pressure Groundwater Management Zone (Figure 1).

EMWD is requesting that the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) consider changing the water quality objectives of the San Jacinto - Upper Pressure Groundwater Management Zone to enable the efficient implementation of the Hemet/San Jacinto Water Management Plan. Changing the objectives will create assimilative capacity in the San Jacinto - Upper Pressure Groundwater Management Zone and thereby enable the use of recycled water and allow for the recharge of imported water. Without this change, the Management Plan cannot proceed.

Basin Plan Update

The last Basin Plan update was in February 2008. The nature of that update was to:

- Update the formatting of the Plan from a two column width to a full page width format.
- Include the text, tables and exhibits of all Basin Plan amendments.
- As called for by the adopted Basin Plan amendments, remove text and tables from the Plan that have been replaced or deleted.
- Revise page numbers accordingly.

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A TIN/TDS Task Force was formed in the mid 1990s to perform certain investigations that would lead to the establishment of new TIN and TDS objectives for groundwater basins in the Santa Ana River Watershed. The Regional Board, water recycling agencies, and many other entities participated in the Task Force. The TIN/TDS Task Force published a report entitled *TIN/TDS Study – Phase 2A, Final Technical Memorandum* (Wildermuth Environmental, 2000). The Regional Board revised the Basin Plan in 2004 based on that study. The new TDS and TIN objectives were based on a statistical analysis of well

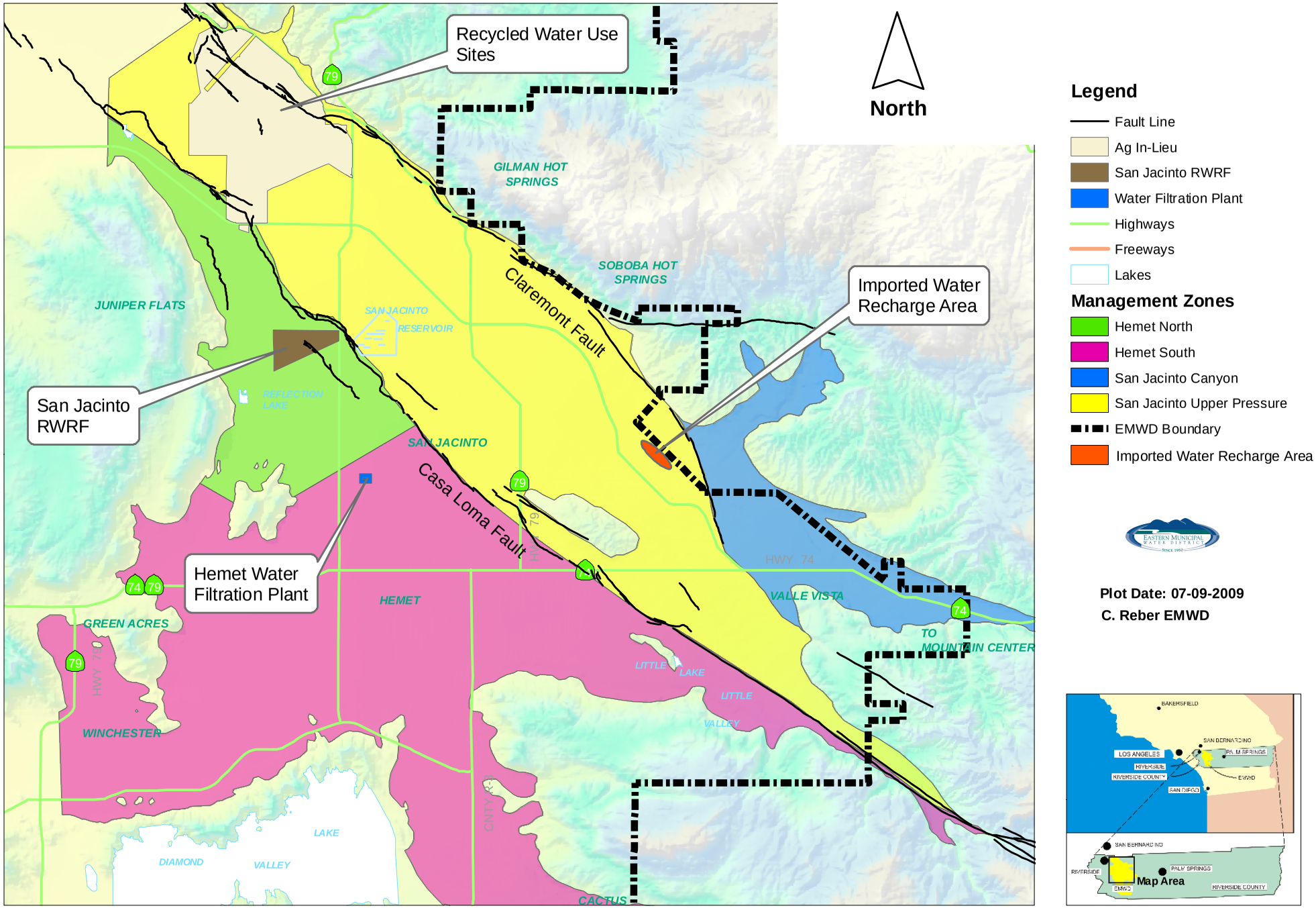

Figure 1. San Jacinto Upper Pressure Management Zone Site Map

water quality data for the period of 1954 to 1973 with the resulting well statistics volumetrically averaged to yield a new statistic for each water body. The first part of the State Water Board's Executive Order 68-16 (Antidegradation Policy) is the basis for this approach. Executive Order 68-16 states:

1) *Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of such water and will not result in water quality less than that prescribed in the policies.*

2) *Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*

3) *In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.*

The operating concept from Executive Order 68-16 for establishing antidegradation objectives is:

1) *Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained . . .*

The new objectives and associated water bodies in the San Jacinto Basin are:

Groundwater Management Zone	TDS Objective (mg/l)	TIN Objective (mg/l)
Canyon	230	2.5
Hemet South	730	4.1
Lakeview – Hemet North	520	1.8
Menifee	1020	2.8
Perris North	570	5.2
Perris South	1260	2.5
San Jacinto – Lower Pressure	520	1.0
San Jacinto – Upper Pressure	320	1.4

These new management zones and their respective TDS and TIN objectives were approved by the Regional Board in January 2004 (Order No. R8-2004-0001) and became effective in December 2004.

These management zones are identical to the management zones adopted by the Hemet/San Jacinto Groundwater Area Management stakeholders in the Hemet/San Jacinto Water Management Plan and are shown in Figure 3-8 of the TIN/TDS Study and Figure 1 in this report. The TIN/TDS Task Force Report also demonstrated that there was no assimilative capacity in the San Jacinto – Upper Pressure Groundwater Management Zone for either TDS or TIN.

EMWD's Proposed TDS and TIN Objectives

EMWD's proposal is based on California Water Code §13241 and other criteria to establish TDS and TIN objectives in the San Jacinto – Upper Pressure Groundwater Management Zone consistent with Executive Order 68-16. As previously stated, the operating concept from Executive Order 68-16 for establishing maximum benefit-based objectives is:

> *Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been **demonstrated** to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.* Emphasis added.

§13241 states the criteria that need to be considered in establishing water quality objectives other than the minimum requirement stated in Executive Order 68-16. The discussion that follows and the commitments made are structured to demonstrate that implementing the proposed water management strategy along with changing the objectives will promote the maximum beneficial use of the waters of the State. §13241 states:

> *Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality of the water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:*
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> *a) Past, present, and probable future beneficial uses of water.*
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> *b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.*
>
> *c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.*
>
> *d) Economic considerations.*

e) The need for developing housing within the region.

f) The need to develop and use recycled water.

EMWD requests that the TDS and TIN objectives for the San Jacinto – Upper Pressure Groundwater Management Zone be amended as follows:

TDS (mg/l)		TIN (mg/l)	
Existing	Proposed	Existing	Proposed
370	500	1.7	7.0

The "Existing" objectives are estimates of the volume-weighted quality in 2003, the last year in which estimates of ambient TDS and TIN concentrations were available (WEI, 2005). The proposed TDS objective is the drinking water secondary maximum contaminant level for TDS that was established based on aesthetic considerations. The proposed TIN objective is based on values that can accommodate the direct use of recycled water in the San Jacinto – Upper Pressure Groundwater Management Zone without impairing beneficial uses.

Substitute Environmental Document

1 Introduction

Eastern Municipal Water District (EMWD) applied to the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) for a Basin Plan Amendment (BPA) for the San Jacinto – Upper Pressure Groundwater Management Zone (Figure 1). Before the Regional Board can act on the request for the BPA, it must comply with the provisions of the California Environmental Quality Act (CEQA).

2 CEQA Requirements

Section 21080.5 of the Public Resources Code authorizes the Secretary for Resources to certify State regulatory programs, designed to meet the goals of CEQA, as exempt from its requirements to prepare an Environmental Impact Report, Negative Declaration, or Initial Study. The State Water Resources Control Board's (State Water Board) and the Regional Board's BPA process is a Certified Regulatory Program and is therefore exempt from CEQA's requirements to prepare such documents [14 CCR 15251(g)][1].

The State Water Board's CEQA Implementation regulations (23 CCR 3720 et seq.) describe the environmental documents required for BPA actions. Section 3777 states:

a) Any standard, rule, regulation, or plan proposed for board approval or adoption must be accompanied by a completed Environmental Checklist contained in Appendix A to this subchapter or such other completed checklist as may be prescribed by the board, and a written report prepared for the board, containing the following:

1) A brief description of the proposed activity;

2) Reasonable alternatives to the proposed activity; and

3) Mitigation measures to minimize any significant adverse environmental impacts of the proposed activity.

b) Upon completion of the written report, the board shall provide a Notice of Filing of the report to the public and to any person who requests, in writing, such notification.

[1] 14 CCR 15251(g) means Title 14 California Code of Regulations, Section 15251(g).

117°0'0"W

33°40'0"N

Bernasconi Hills

Bridge St

Ramona Expressway

San Jacinto River

Lakeview Mountains

Sanderson Ave

Esplanade Ave

San Jacinto Mountains

Soboda St

74

Stetson Ave

Warren Rd

State St

Simpson Ave

Salt Creek

Diamond Valley Lake

79

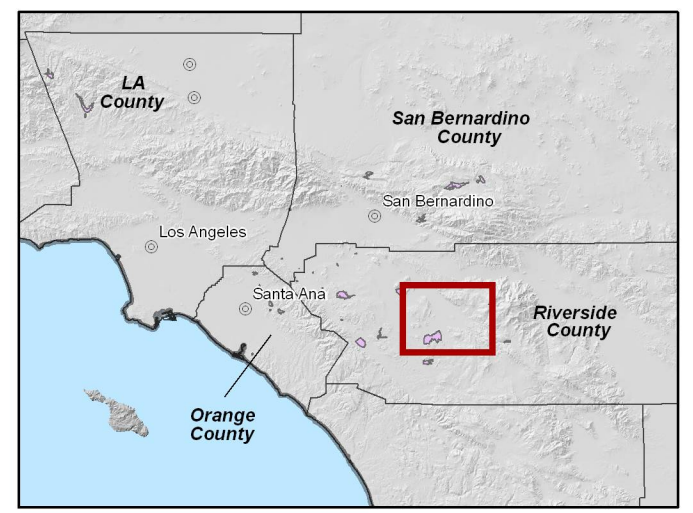
74

117°0'0"W

33°40'0"N

Management Area

- Canyon Management Zone
- Hemet-South Management Zone
- Hemet-North Portion of Lakeview - Hemet North Management Zone
- San Jacinto-Upper Pressure Management Zone



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Date: 20061207

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0 1 2 3 4 5 Miles

0 1 2 3 4 5 KM

EASTERN MUNICIPAL WATER DISTRICT SINCE 1950

Maximum Benefit Proposal

Hemet/San Jacinto Groundwater Management Area

Management Zone Boundary

Figure 1

The board shall not take action on the proposed activity until 45 days after the Notice of Filing contained in Appendix C to this subchapter has been provided.

3 Scope of the Environmental Analysis

CEQA has special provisions that establish the scope of the environmental analysis required for the adoption of this Basin Plan Amendment. CEQA limits the scope of an environmental analysis of the reasonably foreseeable methods of compliance with the amendment. As previously stated, the State Water Board's CEQA Implementation Regulations for Certified Regulatory Programs (23 CCR 3777) require the environmental analysis to include at least the following:

1. A brief description of the proposed activity. In this case, the proposed activity is the Basin Plan Amendment. The amendment is described under "4. Description of the Proposed Activity".

2. Reasonable alternatives to the proposed activity (discussed under "9 Reasonable Alternatives to the Proposed Activity").

3. Mitigation measures to minimize any significant adverse environmental impacts of the proposed activity (discussed under "8. Discussion of Possible Environmental Impacts of Implementation of the Basin Plan Amendment and Environmental Commitments").

Additionally, CEQA [PRC 21159(a)] and the CEQA Guidelines [14 CFR 15187(c)] require the following components, some of which are repetitive of the list above:

1. An analysis of the reasonable foreseeable environmental impacts of the methods of compliance. These methods may be employed to comply with the Basin Plan amendment. Reasonably foreseeable methods of compliance are described in Section 5. Sections 7 and 8 identify the environmental impacts associated with the methods of compliance.

2. An analysis of the reasonably foreseeable feasible mitigation measures relating to those impacts. This discussion is also in Section 8.

3. An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified impacts. This discussion is in Section 5.

Additionally, the CEQA Guidelines [14 CCR 15187(d), PRC 21159(c)] require the environmental analysis take into account a reasonable range of:

1. Environmental factors (Sections 7 and 8);

2. Economic factors (Section 4);
3. Technical factors (Section 4);
4. Population (Section 4);
5. Geographic areas (Section 6); and
6. Specific sites (Section 5).

A "reasonable range" does not require an examination of every site, but a reasonably representative sampling of them. The statute [PRC 21159(d)] specifically states that the agency shall not conduct a "project level analysis". Rather, a project level analysis must be performed by the agencies that are required to implement the programs in accordance with the Basin Plan Amendment (PRC 21159.2). Notably, the California Regional Water Quality Control Board, Santa Ana Region is prohibited from specifying the manner of compliance with its regulations (WC 13360), and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by the agencies that are required to implement the programs in accordance with the Basin Plan Amendment. In preparing this Basin Plan Amendment, the California Regional Water Quality Control Board, Santa Ana Region has considered the pertinent requirements of State law (PRC 21159 and 14 CCR 15187), and intends this analysis to serve as a tier 1 environmental review.

Any potential environmental impacts associated with the Basin Plan Amendment depend upon the specific compliance projects selected by the agencies that are required to implement the programs in accordance with the Basin Plan Amendment, most of which are public agencies and subject to their own CEQA obligations. If not properly implemented or mitigated at the project level, there could be adverse environmental impacts from implementing projects in accordance with the Basin Plan Amendment. The Substitute CEQA Documents identify broad mitigation approaches that could be considered at the project level. Consistent with CEQA, the substitute documents do not engage in speculation or conjecture, but rather consider the reasonably foreseeable methods of compliance, the reasonably foreseeable mitigation measures, and the reasonably foreseeable alternative means of compliance, which would avoid, eliminate, or reduce the identified impacts.

4 Description of the Proposed Activity

Background

The 1995 Water Quality Control Plan for the Santa Ana River Basin (Region 8) was amended in 2004. The amended version included the following beneficial uses of groundwater in the San Jacinto - Upper Pressure Groundwater Management Zone:

- MUN (municipal) – waters used for community, military, municipal or individual water systems. These uses include, but are not limited to, drinking water supply.

- AGR (agricultural) – waters used for farming, horticulture or ranching. These uses may include, but are not limited to, irrigation, stock watering and support of vegetation for range grazing.

- IND (industrial supply) – waters used for industrial activities that do not depend primarily upon water quality. These uses include, but are not limited to, mining, cooling water supply, conveyance, gravel washing, fire protection and oil well repressurization.

- PROC (industrial process) – waters used for industrial activities that depend primarily on water quality. These uses include, but are not limited to, process water supply and all uses of water related to product manufacturing and food preparation.

The 2004 amendment also included the following water quality objectives for the San Jacinto - Upper Pressure Groundwater Management Zone:

- TDS (total dissolved solids) 320 mg/l

- NO_3 - N (nitrate as nitrogen) 1.4 mg/l

These objectives resulted in the following assimilative capacities for these two constituents in the San Jacinto - Upper Pressure Groundwater Management Zone:

Constituent	Water Quality Objective (mg/l)	2006 Ambient (mg/l)	Assimilative Capacity (mg/l)
TDS	320	350	-30
NO_3-N	1.4	1.6	-0.2

As shown above, there is no assimilative capacity in the San Jacinto - Upper Pressure Groundwater Management Zone for these minerals.

The stakeholders in the Hemet/San Jacinto Groundwater Management Area (Management Area) developed the Hemet/San Jacinto Water Management Plan to provide a foundation that guides and supports responsible water management in the future. The local stakeholders involved in the Management Plan include EMWD, Lake Hemet Municipal Water District (LHMWD), the Cities of Hemet and San Jacinto, and private water producers. EMWD and LHMWD have also worked with the Soboba Band of Luiseño Indians and the federal government to develop a Settlement Agreement that would resolve past issues with respect to tribal water rights and water management practices in the Management Area.

The stakeholders also developed a Stipulated Judgment that was filed in the Riverside County Superior Court in 2007. The Stipulated Judgment called for the formation of a Watermaster to implement the Management Plan, which describes water supply management to maximize the reasonable and beneficial use of all waters available in the area, eliminate overdraft, protect prior rights of the Soboba Tribe, and provide for the substantial enjoyment of all water rights by recognizing their priorities. As part of the Management Plan, the Watermaster, through EMWD, is implementing the following programs:

- Hemet/San Jacinto Integrated Recharge and Recovery Program
- Recycled Water In-Lieu Project
- Hemet Water Filtration Plant

The location of these three programs is shown on Figure 2 and they are briefly described in the following paragraphs.

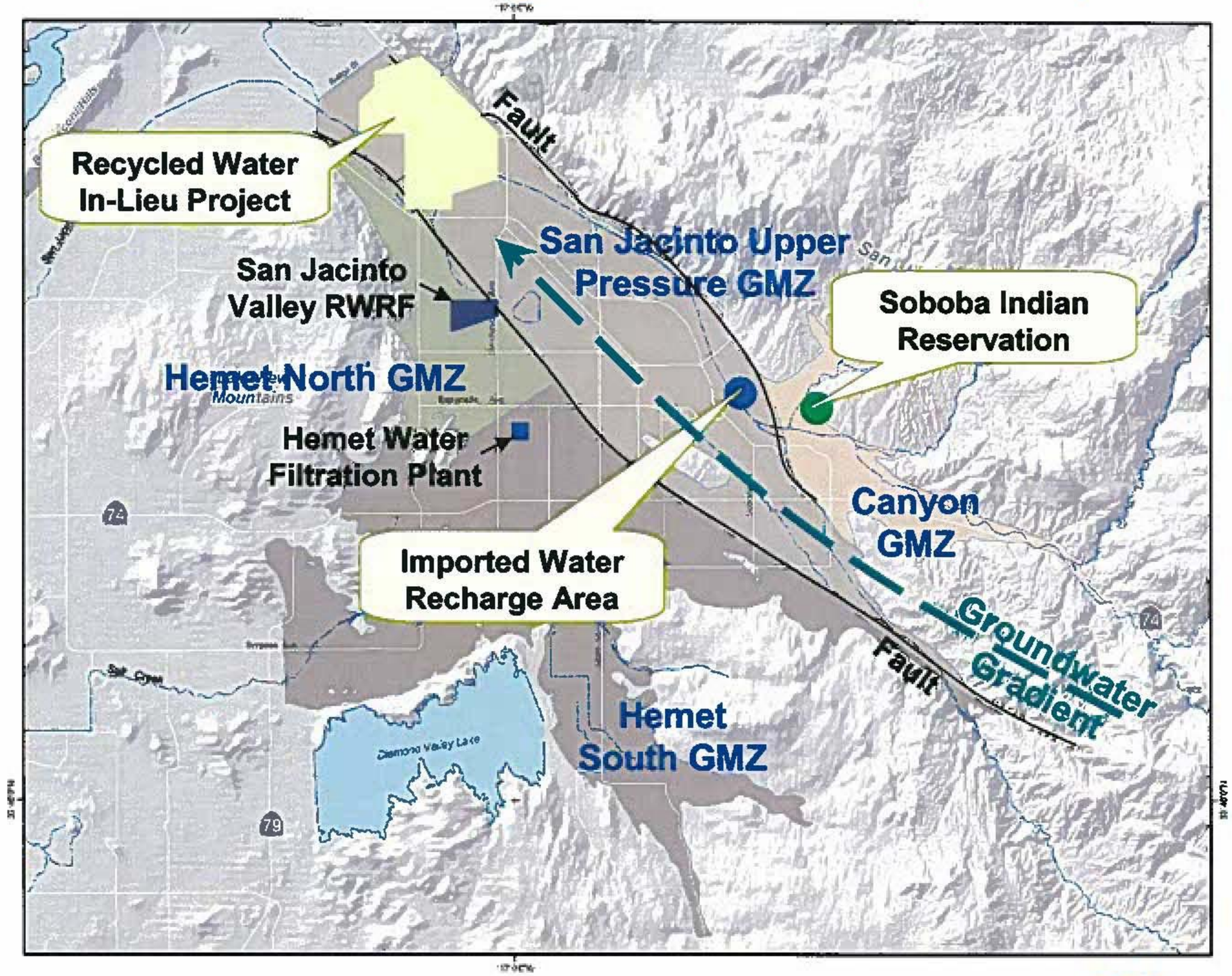
Hemet/San Jacinto Integrated Recharge and Recovery Program

The Hemet/San Jacinto Integrated Recharge and Recovery Program (IRRP) is designed to recharge imported water and extract groundwater at a capacity such that the following goals are met:

- satisfy prior and paramount Soboba Tribe water rights;
- offset the estimated 10,000 acre-feet per annum (afa) of overdraft in the Management Area; and
- provide an additional 15,000 afa to help meet the demand increases.

San Jacinto Upper Pressure

Groundwater Management Zone (GMZ)



Management Area

- Canyon Management Zone
- Hemet-South Management Zone
- Hemet-North Portion of Lakeview - Hemet North Management Zone
- San Jacinto-Upper Pressure Management Zone

SAN JACINTO UPPER PRESSURE GMZ	
	Maximum Benefit Objectives
TDS	**500 mg/L**
TIN	**7.0 mg/L**

Hemet/San Jacinto Groundwater Management Area

Management Zone Boundary

Figure 2

Phase I of the IRRP has been designed and funded and the necessary environmental permits are being acquired. Phase II is in the planning stages. Phase I will consist of six recharge ponds within the San Jacinto Riverbed and will provide up to 42 cubic feet per second (cfs) of recharge capacity. Phase I will be completed in December 2009. The completion of Phase II has the potential to double the recharge capacity.

The San Jacinto - Upper Pressure Groundwater Management Zone is expected to receive a long-term average recharge of about 16,000 afa of State Water Project (SWP) water with average TDS and TIN values of 250 and 0.6 mg/l, respectively. This recharge of higher quality SWP water will result in a net benefit to the San Jacinto – Upper Pressure Groundwater Management Zone, which currently (2006) has ambient TDS and TIN concentrations of 350 and 1.6 mg/l, respectively.

At present, the water quality objectives for TDS and TIN are 320 and 1.4 mg/l, respectively. Therefore, based on the current ambient concentrations of TDS and TIN, there is no assimilative capacity for either constituent.

Recycled Water In-Lieu Project

The Recycled Water In-Lieu Project will supply recycled water from the San Jacinto Valley Regional Water Reclamation Facility for agricultural irrigation in-lieu of pumping native groundwater. This project will provide additional recycled water to the approximately 5,000 afa that is currently being served throughout the Management Area.

One project that is already in the planning stages could deliver up to 8,540 afa of recycled water to Rancho Casa Loma and the Scott Brothers Dairy, which are located in the lower portion of the San Jacinto – Upper Pressure Groundwater Management Zone.[2] A Mitigated Negative Declaration (State Clearinghouse No. 2007011020) was approved for this Project by EMWD's Board of Directors on March 7, 2007.

The project costs will be split between EMWD, LHMWD and the Cities of Hemet and San Jacinto. Agreements that set limits on groundwater production and provide for payment of a portion of the operation and maintenance costs will be made with Rancho Casa Loma and the Scotts Brothers Dairy

Hemet Water Filtration Plant

EMWD has constructed the 11,000 afa Hemet Water Filtration Plant to treat SWP water for potable supply. This additional supply will be used in-lieu of native groundwater. The use of treated imported

[2] The groundwater gradient in the San Jacinto – Upper Pressure Management Zone is from southeast to northwest as shown on Figure 2.

water will reduce the TDS in the recycled water and result in a net decrease in the TDS concentration in returns from use to groundwater.

Requested Basin Plan Amendment

Introduction

EMWD is requesting that the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) consider changing the water quality objectives of the San Jacinto - Upper Pressure Groundwater Management Zone to enable the efficient implementation of the Hemet/San Jacinto Water Management Plan. Changing the objectives will create assimilative capacity in the San Jacinto - Upper Pressure Groundwater Management Zone and thereby enable the use of recycled water and allow for the recharge of imported water. Without this change, the Management Plan cannot proceed.

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§13241 states the criteria that need to be considered in establishing water quality objectives other than the minimum requirement stated in Executive Order 68-16. The discussion that follows and the commitments made are structured to demonstrate that implementing the proposed water management strategy along with changing the objectives will promote the maximum beneficial use of the waters of the State. §13241 states:

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EMWD requests that the TDS and TIN objectives for the San Jacinto – Upper Pressure Groundwater Management Zone be amended as follows:

TDS (mg/l)		TIN (mg/l)	
Existing	Proposed	Existing	Proposed
370	500	1.7	7.0

The "Existing" objectives are estimates of the volume-weighted quality in 2003, the last year in which estimates of ambient TDS and TIN concentrations were available at that time (WEI, 2005). The proposed TDS objective is the drinking water secondary maximum contaminant level for TDS that was established based on aesthetic considerations. The proposed TIN objective is based on values that can accommodate the direct use of recycled water in the San Jacinto – Upper Pressure Groundwater Management Zone without impairing beneficial uses.

The above proposed objectives are evaluated based on Water Code §13241 in the following paragraphs.

§13241(a) Past, Present and Probable Future Beneficial Uses of Water

As previously stated, the beneficial uses in the current Basin Plan for the San Jacinto – Upper Pressure Groundwater Management Zone are:

- MUN (municipal)
- AGR (agriculture)
- IND (industrial)
- PROC (industrial process water)

The use impairment threshold concentrations for TDS and TIN for these beneficial uses as listed or inferred from the current Basin Plan are:

Beneficial Use	TDS Threshold (mg/l)	TIN Threshold (mg/l)
MUN	500	10
AGR	700	>10
IND	nl	nl
PROC	nl	nl

The "nl" listed above means that the Basin Plan is silent as to the impairment threshold concentrations for these uses. For the AGR use, the Basin Plan states that 700 mg/l is the beneficial use threshold for irrigation. The Basin Plan is silent regarding the TIN impairment threshold for the AGR use. However, it is reasonable to assume that this impairment threshold is significantly greater than 10 mg/l; thus, it is shown above as > 10 mg/l. The proposed TDS and TIN objectives are protective of all of these beneficial uses.

§13241(b) Environmental Characteristic of the Hydrologic Unit under Consideration, Including the Quality of Water Available thereto.

Total Dissolved Solids

EMWD has conducted studies to estimate future TDS concentrations in the San Jacinto – Upper Pressure Groundwater Management Zone. The following water resources management cases were analyzed:

Case 1 No project scenario: the IRRP and Recycled Water In-Lieu Project do not occur. Groundwater production is reduced according to the Management Plan and remaining water demand is satisfied by treated imported water.

Case 2 The IRRP does not occur and the Recycled Water In-Lieu Project is online. The recycled water TDS concentration is 575 mg/l. Groundwater production is reduced according to the Management Plan and remaining water demand is satisfied by treated imported water.

Case 3 SWP water is used for groundwater replenishment and the Recycled In-Lieu Project is online. The Hemet Water Filtration Plant is constructed and treated imported water is served in lieu of native groundwater.

Case 4 Same as Case 3; however, the TDS concentration of the recycled water is 650 mg/l.

Each case represents a possible water resources management strategy that could be adopted by EMWD. Case 1 represents future conditions without the proposed major facility improvements in the Management Plan. In Case 1, groundwater production must be reduced to the safe yield of the basin. Case 2 is identical to Case 1 except that the Recycled Water In-Lieu Project is assumed to be online in 2008. Cases 3 and 4 represent the proposed Management Plan with the IRRP, Recycled Water In-Lieu Project, Hemet Water Filtration Plant, and differ only in the assumption of TDS concentration in the recycled water used for irrigation in the Recycled Water In-Lieu Project. Recall that the Management Plan includes the recharge of up to about 16,000 afa of SWP water and the Hemet Water Filtration Plant produces up to 8,000 afa of treated imported water in-lieu of native groundwater.

Figure 3 shows the estimated San Jacinto – Upper Pressure Groundwater Management Zone TDS concentrations expected through the year 2100 for all four cases. Case 1 results in an ambient TDS concentration of about 800 mg/l in 2100. The increasing TDS concentration is driven by returns from water applied for irrigation. In Case 2, the TDS concentration increases by about 135 mg/l over Case 1 in

2100. The estimated TDS concentration in year 2100 for Cases 3 and 4 are about 710 and 740 mg/l respectively. EMWD will offset the TDS inputs to groundwater from the Recycled Water In-Lieu Project and slow the expected increase of the San Jacinto – Upper Pressure Groundwater Management Zone TDS concentrations by implementing the Hemet/San Jacinto Water Management Plan and recharging imported water. Cases 3 and 4 are the alternatives that must be pursued by EMWD to ensure a reliable supply in its service area.

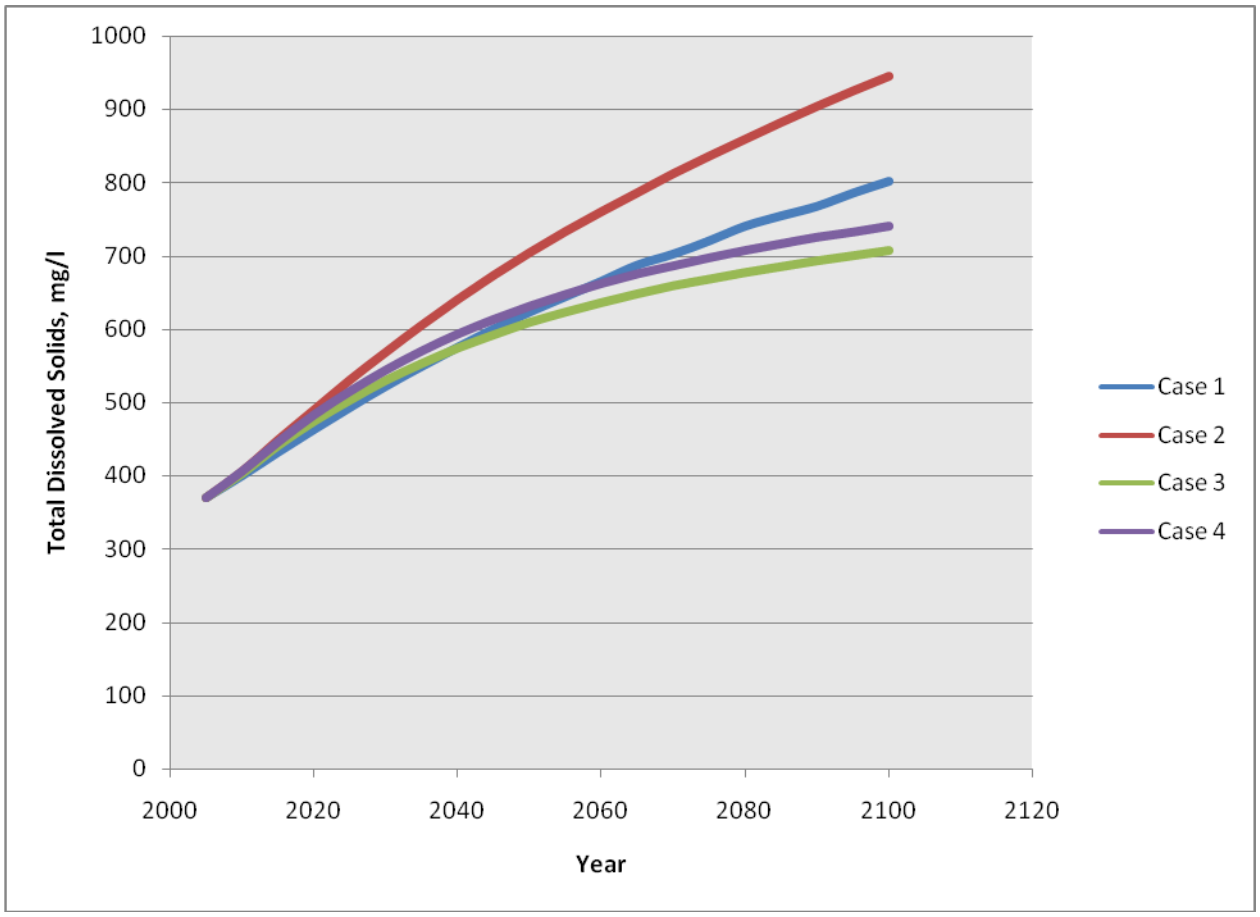

Figure 3 Comparison of Total Dissolved Solids Concentration Time Histories for the San Jacinto – Upper Pressure Groundwater Management Zone

EMWD's proposal is to implement Case 4 and to set the TDS objective at 500 mg/l. This proposal will allow EMWD to make the maximum beneficial use of waters available to the region. The 500 mg/l value corresponds to the drinking water secondary maximum contaminant level for TDS. The TDS projections shown on Figure 3 do not take into account the travel time through the vadose zone for returns from water applied for irrigation. Therefore, TDS concentration projections for the San Jacinto – Upper Pressure Groundwater Management Zone will not increase as rapidly as suggested on Figure 3.

The Management Plan, as implemented by Case 4, may result in the management zones surrounding the San Jacinto – Upper Pressure Groundwater Management Zone receiving better quality water than if the Management Plan were not implemented. The most current groundwater flow model for the San Jacinto Watershed assumes that there is no outflow from the San Jacinto – Upper Pressure Groundwater Management Zone (TechLink Environmental, Inc. 2002). It is believed that there is some outflow to the Hemet South Groundwater Management Zone, but that this flow is de minimus. With the implementation of the Management Plan, groundwater levels will rise in the San Jacinto – Upper Pressure Groundwater Management Zone and there may be outflow to the Hemet South, Lakeview/Hemet North, and San Jacinto – Lower Pressure Groundwater Management Zones. The ambient TDS concentrations for these management zones are greater than the proposed objective for the San Jacinto – Upper Pressure Groundwater Management Zone; therefore, any incidental subsurface discharge from the San Jacinto – Upper Pressure Groundwater Management Zone to the adjacent management zones would have a beneficial impact on said management zones.

Total Inorganic Nitrogen

The TIN/TDS Task Force determined that the use protection threshold for TIN in groundwater was 8 mg/l. The proposed objective and ambient TIN concentrations in the San Jacinto – Upper Pressure Groundwater Management Zone are lower than 8 mg/l and are thus protective of current and future beneficial uses. EMWD produces recycled water with a 12-month average TIN concentration of 10 mg/l. TIN losses in recycled water recharge are assumed to be at least 25 percent in the Basin Plan and a recent study titled *Quantification of Nitrogen Removal Under Recycled Water Ponds* (Daniel B. Stephens & Associates, Inc., 2007) demonstrated that total nitrogen losses under the Alessandro Ponds in the San Jacinto – Upper Pressure Groundwater Management Zone averaged 64 percent at a depth of about 29 feet. Based on the results of this study, EMWD received approval from the Regional Board to use a nitrogen uptake rate of 60 percent.

The addition of TIN to the San Jacinto – Upper Pressure Groundwater Management Zone from the use of recycled water by participants in the Recycled Water In-Lieu Project, Rancho Casa Loma and the Scott Brothers Dairy, will be addressed by compliance with the requirements of Regional Board Order No. R8-2007-0001 – General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region (NPDES No. CAG018001). It should also be pointed out that the recycled water irrigation project is located in the furthest downstream location of the basin. The recycled water is applied at the surface level in an area of known natural clay layers that will minimize the vertical migration of the irrigated recycled water.

EMWD proposes that the TIN objective for the San Jacinto – Upper Pressure Groundwater Management Zone be set at 7 mg/l. This will create assimilative capacity in this management zone, allowing for the direct use of recycled water without mitigation and still protect the beneficial uses in this management zone.

§13241(c) Water Quality Conditions that could Reasonably be Achieved through the Coordinated Control of all Factors which Affect Water Quality in the Area

The controllable factors that affect TDS and TIN in the San Jacinto – Upper Pressure Groundwater Management Zone include the recharge of imported water and the use of recycled water. With the implementation of the Management Plan, up to about 16,000 afa of imported water (TDS – 250 mg/l and TIN < 1mg/l) will be recharged to replenish lower quality groundwater and its physical recharge capacity for the recharge of supplemental water will increase by at least 30,000 afa. With the implementation of the Management Plan, EMWD is committed to serve the recycled water with the lowest TDS available. The recharge of imported water will partially mitigate the effects of recycled water use in the San Jacinto – Upper Pressure Groundwater Management Zone. EMWD, in implementing the Plan, is taking extraordinary steps to optimize the management of the Management Area by improving supply reliability and water quality. Setting the TDS and TIN objectives per the EMWD proposal will reduce the cost of replenishment, which is necessary to ensure that the Management Plan is economically viable.

§13241(d) Economic Considerations

With the current TDS and TIN objectives in the Basin Plan, there is no assimilative capacity for either of these constituents. As a result, there will be TDS and TIN mitigation requirements for the recharge and direct reuse of recycled water and potentially the recharge of potable water. From the discussion in §13241(b) above, it is clear that the TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone will increase regardless of the TDS objective and with or without recycled water use. The Santa Ana Watershed Project Authority Basin Plan Update Task Force (SAWPA BPUTF) retained Bill Dendy and Associates to analyze the economic benefits of various management programs, including:

- Managing groundwater basins to achieve Basin Plan objectives for TDS and TIN.
- Managing groundwater basins to maintain current TDS and TIN concentrations.
- Constructing groundwater treatment systems to ensure that groundwater can be put to potable uses.

The results of Dendy's work are contained in the final report *Nitrogen and TDS Studies, Upper Santa Ana Watershed* (James M. Montgomery, 1991). In summary, the SAWPA BPUTF report concluded that the cost of managing groundwater quality to achieve Basin Plan objectives or stop degradation were $6.5 billion and $3.2 billion (present worth, 1991 dollars), respectively. The cost of producing potable water through the construction of groundwater treatment plants is more reasonable at $1.9 billion. The SAWPA BPUTF report concluded that groundwater treatment for potable use was the best solution to manage the future TDS and TIN degradation of groundwater. This is because the TDS and TIN levels in agriculture and urban return flows to groundwater are not regulated and the TDS and TIN

concentrations in groundwater basins are asymptotically approaching the levels in the recharge to these basins.

Simply put, the TIN/TDS Task Force proposed management zones and associated TDS and TIN objectives will cause the mitigation expense to occur without tangible benefits to anyone in the watershed. This needless economic burden will inhibit the maximum use of recycled water and the recharge of imported water planned in the San Jacinto – Upper Pressure Groundwater Management Zone.

Adopting the EMWD proposed TDS and TIN objectives will lower the cost of implementing the Plan and increase the amount of SWP water available throughout the State; a Statewide economic and environmental benefit. That said, the Plan commits EMWD and others to spend about $600 million over the next 30 years to improve water quality and the reliability of groundwater in the San Jacinto – Upper Pressure Groundwater Management Zone.

§13241(e) The Need for Developing Housing Units within the Region and §13241(f) The Need to Develop and Use Recycled Water

The County of Riverside and the cities in the Management Area have determined a need for housing and have adopted general and specific plans that show substantial increases in housing in the Management Area as the land is converted from agricultural uses to urban uses. All of these plans have been approved and have certified environmental documents. The water supply entities in the Management Area have responded to the water supply challenge posed by these plans by developing water supply plans that depend heavily on local and supplemental supplies. The Management Plan addresses current and future demands through the development of large-scale recharge, recycled water in-lieu projects, regional conveyances and conjunctive use programs. The Kuell (SB221) and Costa (SB610) legislations require extensive documentation and demonstration of water supply reliability prior to allowing new housing to occur. The Recycled Water In-Lieu Project will offset the use of 8,540 afa of native groundwater in the San Jacinto – Upper Pressure Groundwater Management Zone or reduce the overdraft in the Management Area up to 85 percent. Recycled water use in the Management Area is necessary for growth and is necessary to implement the Management Plan. Setting the TDS and TIN objectives as proposed by EMWD will maximize the use of recycled water and, thereby, improve the reliability of water supplies for future growth in the region.

5 EMWD Environmental Commitments

EMWD is a forward thinking water resources management organization and takes its environmental stewardship responsibilities very seriously. Therefore, EMWD is prepared to enter into an agreement with the Regional Board to institutionalize the following environmental commitments along with EMWD's proposed TDS and TIN objectives. EMWD's environmental commitments are described below.

Implement the Hemet/San Jacinto Water Management Plan

EMWD will commit to the implementation of the Hemet/San Jacinto Water Management Plan pursuant to the schedules articulated in the Plan. The Management Plan has been adopted by the governing bodies of the Management Plan participants. It has the following eight primary goals:

- Address pumping overdraft and declining groundwater levels.
- Provide for Soboba Band of Luiseño Indians prior and paramount water rights.
- Ensure reliable water supply.
- Provide for planned urban growth.
- Protect and enhance water quality.
- Develop cost-effective water supply.
- Provide adequate monitoring for water supply and water quality.
- Supersede the Fruitvale Judgment and Decree.

Develop and Implement a Salinity Management Program

EMWD will develop and implement a program to minimize the TDS concentration in the source water and recycled water. The plan will include efforts to supply water with the lowest reasonable TDS concentrations for municipal purposes and efforts to reduce the TDS waste increment through use (defined herein as the average TDS increase that occurs through indoor uses, which is numerically equal to the average TDS concentration in the recycled water minus the average TDS concentration in the source water supply) and salt added through treatment at recycled water facilities. The waste increment includes salt added by water conditioning and self regenerative water softeners, industrial sources and other sources. EMWD will use its best efforts to enact ordinances, incentive programs, and development requirements that minimize the TDS waste increment.

The salinity management program will include TDS reduction strategies to protect beneficial uses when the ambient TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone approaches the maximum benefit based objectives and to meet waste discharge requirements when the TDS concentration in the San Jacinto Valley Regional Water Reclamation Facility's effluent five-year running average exceeds 640 mg/l. When the volume-weighted TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone rises to within 10 mg/l of the proposed TDS objective of 500 mg/l, EMWD will develop a plan either to reduce the TDS concentration in the source water and

serve this water to its customers and/or to reduce the TDS concentration in the recycled water. This plan will include the construction of desalting facilities or the use of an equivalent technology to reduce the TDS concentration in the source water supply and/or recycled water.

This plan will be submitted to the Regional Board 12 months after the requested Basin Plan Amendment (TDS objective of 500 mg/l and TIN objective of 7 mg/l) is effective.

Ambient Groundwater Quality and Wasteload Allocation

EMWD will either financially contribute to regional efforts to estimate the ambient TDS and TIN concentrations for the management zones in its service area or will prepare these estimates itself. If done by EMWD, the results will be documented in a report submitted to the Regional Board every three years on a timetable directed by the Regional Board.

EMWD will financially participate in regional efforts to review and update the TDS and TIN wasteload allocation for the Santa Ana River and its tributaries.

EMWD will prepare estimates of the ambient TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone every six years on a timetable directed by the Regional Board. This projection will be compared to prior projections and to estimates of the historic ambient TDS concentration. This analysis will be documented in a report submitted to the Regional Board.

Groundwater Monitoring Program

EMWD is committed to conducting and funding monitoring activities that will enable the determination of ambient TDS and TIN concentrations in the groundwater in the San Jacinto – Upper Pressure Groundwater Management Zone and to cooperating with the Regional Board in the sharing of monitoring data as is consistent with EMWD policies.

6 Surrounding Land Uses and Setting

The Santa Ana Region is the smallest of the nine regions in the State (2,800 square miles) and is located roughly between Los Angeles and San Diego. Although small, the region's four million residents (1993) make it one of the most densely populated regions. People come to Southern California over the years for a wide variety of reasons. Once here, many decide to stay. Snow skiing and boarding areas in the mountains are as little as two hours from world-famous broad, sandy ocean beaches.

The climate of the Santa Ana Region is classified as Mediterranean, generally dry in the summer with mild, wet winters. The average annual rainfall in the region is about 15 inches, most of it occurring between November and March. Much of the area would be near-desert were if not for the influence of modern civilization.

In very broad terms, the Santa Ana Region is a group of connected inland basins and open coastal basins drained by surface streams flowing generally southwestward to the Pacific Ocean.

The San Jacinto – Upper Groundwater Management Zone is within the San Jacinto Valley in western Riverside County. The area encompasses the cities of Hemet and San Jacinto as well as unincorporated residential/commercial areas and agricultural lands. Figure 4 shows an aerial photograph of the area and Figure 5 shows the generally flat relief of the San Jacinto Valley in contrast with the high relief of Mt. San Jacinto approximately 20 miles away.

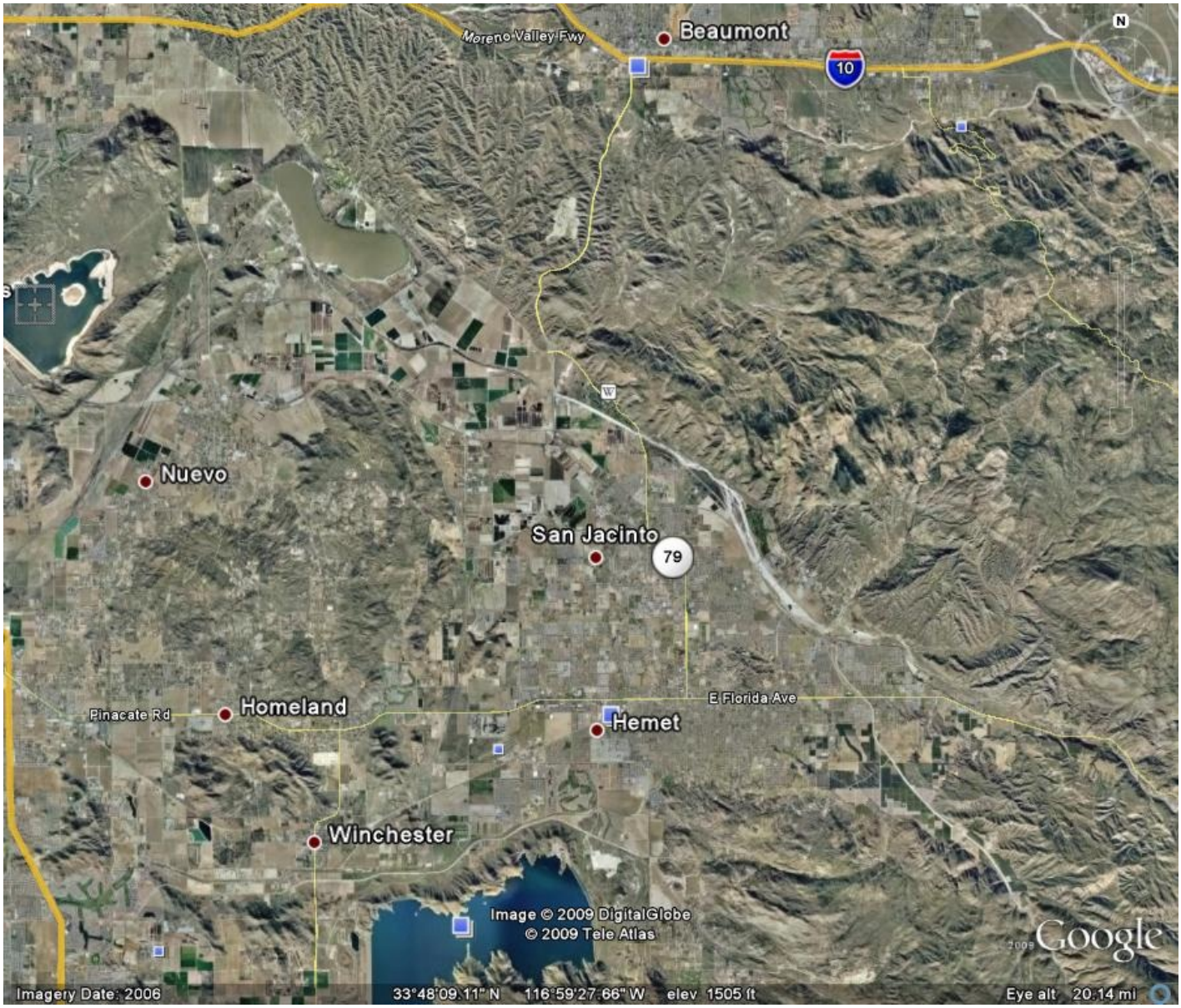

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Figure 4
Aerial of Project Area

Basin Plan Amendment
San Jacinto - Upper Pressure Groundwater Management Zone
Eastern Municipal Water District

Source: Hemet/San Jacinto Water Management Area 2007 Annual Report, EMWD.

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Figure 5
San Jacinto Valley and Mt. San Jacinto

Basin Plan Amendment
San Jacinto - Upper Pressure Groundwater Management Zone
Eastern Municipal Water District

7 Environmental Checklist

Evaluation of the Environmental Impacts in the Checklist

1. The board must complete an environmental checklist prior to adoption of plans or policies. The checklist becomes a part of the Substitute Environmental Document (SED).
2. For each environmental category in the checklist, the Board must determine whether the project will cause any adverse impact. If there are potential impacts that are not included in the sample checklist, those impacts should be added to the checklist.
3. If the board determines that a particular adverse impact may occur as a result of the project, then the checklist boxes must indicate whether the impact is "Potentially Significant", "Less than Significant with Mitigation Incorporated", or "Less than Significant". "Potentially Significant Impact" applies if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries on the checklist, the SED must include an "EIR" level analysis. "Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less than Significant Impact". The board must either require the specific mitigation measures or be certain of their application by another agency. "Less than Significant" applies if the impact will not be significant, and mitigation is not required. If there will be no impact, check the box under "No impact."
4. The board must provide a brief explanation for the checked boxes on the checklist. The explanations may be included in the written report described in the Water Boards' regulations for implementation of CEQA, 23 CCR §3777(a)(1), or in the checklist itself. The explanation of each issue should identify: (a) the significance criteria or threshold, if any, used to evaluate each question and (b) the specific mitigation measure(s) identified, if any, to reduce the impact to less than significance. The board may determine the significance of the impact by considering factual evidence or agency standards or thresholds. If the "No Impact" box is checked, the board should briefly describe the basis for that determination.
5. The board must include mandatory findings of significance if required under CEQA Guidelines §15065.
6. The board should provide references used to identify potential impacts, including a list of information sources and individuals contacted.

Environmental Issues

Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?				**X**
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c. Substantially degrade the existing visual character or quality of the site and its surroundings?				**X**
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?				**X**

Agricultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects lead agencies may refer to the California Agricultural Land Evaluation Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. *Would the Project:*				
a. Convert Prime Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				**X**

Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. *Would the Project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?				X
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X
c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d. Expose sensitive receptors to substantial pollutant concentrations?				X
e. Create objectionable odors affecting a substantial number of people?				X
f. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?				X
g. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?				X

Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites				**X**
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				**X**

Cultural Resources

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				**X**
b. Cause a substantial adverse change in the significance of a archeological resource as defined in § 15064.5?				**X**
c. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?				**X**
d. Disturb any human remains, including those interred outside of formal cemeteries?				**X**

Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
2. Strong seismic ground shaking?			X	
3. Seismic-related ground failure, including liquefaction?			X	
4. Landslides?			X	
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the			X	

environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?				
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and if so, would the project result in a safety hazard for people residing or working in the project area?				X
f. Be located within the vicinity of a private airstrip, and if so, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for				X

which permits have been granted)?				
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site?			X	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X	
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f. Otherwise substantially degrade water quality?			X	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j. Be Inundated by seiche, tsunami, or mudflow?				X

Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program,				X

or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known resource that would be of value to the region and the residents of the state?				**X**
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				**X**
b. Expose persons to or generate excessive groundbourne vibration or groundbourne noise levels?				**X**
c. Result in a substantial permanent increase in ambient noise levels above levels existing without the project?				**X**
d. Result in a substantial temporary or periodic increase in noise levels in the project vicinity above levels existing without the project?			**X**	
e. Be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport,				**X**

and if so, would the project expose people residing or working in the project area to excessive noise levels?				
f. Be located within the vicinity of a private airstrip, and if so, would the project expose people residing or working in the project area to excessive noise levels?				X

Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure?			X	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1. Fire Protection?				X

2. Police Protection?				X
3. Schools?				X
4. Parks?				X
5. Other Public Facilities?				X

Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Transportation/Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?			X	
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm				X

equipment)?				
e. Result in inadequate emergency access?				X
f. Result in inadequate parking capacity?				X
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b. Require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects?			X	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e. Result in a determination by the wastewater treatment provider that serves or may serve the project area that it has adequate capacity to serve the project's projected demand in addition to the provider's existing communities?				X
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g. Comply with federal, state, and local statutes and regulations related to solid waste?				X

Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)				X
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?				X

8 Discussion of Possible Environmental Impacts of Implementation of the Basin Plan Amendment and Environmental Commitments

The environmental analysis must include an analysis of the reasonably foreseeable environmental impacts of the Basin Plan Amendment and reasonable foreseeable feasible mitigation measures relating to those impacts. This section, consisting of answers to the questions in the checklist, discusses the reasonably foreseeable environmental impacts and reasonable foreseeable feasible mitigation measures.

In answering the checklist questions, this section evaluates the impacts of amending the total dissolved solids and total inorganic nitrogen objectives for the San Jacinto – Upper Pressure Management Zone which allow the use of recycled water on agricultural lands overlying the management zone. It also evaluates, in a general manner, the impacts of the EMWD's proposed environmental commitments associated with its proposed total dissolved solids and total inorganic nitrogen objectives.

Potential reasonably foreseeable impacts were evaluated with respect to aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, traffic and transportation, and utilities and service systems. Additionally, mandatory findings of significance regarding short-term, long-term, cumulative and substantial impacts were evaluated.

A significant effect on the environment is defined in regulations as a "substantial or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A social or economic change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." *(14 CCR 15382)*

A significant effect on the environment is defined in statute as "a substantial, or potentially substantial, adverse change in the environment" where "environment" is defined by Public Resources Code §21060.5 as "the physical conditions which exist within the area which will be affected by a proposed project, including air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance."

Aesthetics

Aesthetics. a. Would the project have a substantial adverse effect on a scenic vista?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible aesthetic impacts and associated mitigation measures of the individual projects.

Aesthetics. b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Answer: No Impact.

Discussion: There are no designated State or County scenic highways within the area of the San Jacinto – Upper Pressure Groundwater Management Zone. *(www.dot.ca.gov 7/26/08).* However, the Ramona Expressway is a County Eligible Scenic Highway.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible aesthetic impacts and associated mitigation measures of the individual projects.

Aesthetics. c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible aesthetic impacts and associated mitigation measures of the individual projects.

Aesthetics. d. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other

facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible light and glare impacts and associated mitigation measures of the individual projects.

Agricultural Resources

Agricultural Resources. a. Would the project convert Prime Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Answer: No Impact.

Discussion: There are hundreds of acres of Farmland within the area of the San Jacinto – Upper Pressure Groundwater Management Zone. Should the Regional Board adopt EMWD's proposed objectives for TDS and TIN it would be possible to utilize recycled water on these acreages which would help insure that they would remain in agricultural production due to availability of a reliable and economic water supply.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible agricultural impacts and associated mitigation measures of the individual projects.

Agricultural Resources. b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or

recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible agricultural impacts and associated mitigation measures of the individual projects.

Agricultural Resources. c. Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible agricultural impacts and associated mitigation measures of the individual projects.

Air Quality

Air Quality. a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Answer: No Impact.

Discussion: A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in applicable air quality management plans [i.e., SCAQMD's 2007 Air Quality Management Plan (AQMP)]. The AQMP is based on general plans from local jurisdictions, which includes the City of Hemet, San Jacinto and Riverside County's General Plan. The AQMP accounts for development that would occur as a result of implementation of these local general plans. The proposed Project is consistent with the AQMP in that it would accommodate development approved in these general plans.

Air Quality. b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient

groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible air quality impacts and associated mitigation measures of the individual projects.

In a recent Initial Study and Mitigated Negative Declaration published by EMWD for the Perris II Brackish Groundwater Desalter *(K.S. Dunbar & Associates, Inc., January 2009)* it was stated:

As shown in Table 4-6, the total estimated emissions from the construction of the Perris II Brackish Groundwater Desalter and appurtenances would be less than the SCAQMD threshold criteria for significance. Therefore, based on these threshold criteria, construction of the planned improvements would not result in significant impacts to air quality. Therefore, no further analysis is required.

Table 4-6
Total Estimated Construction Emissions
(pounds per day)

	Pollutant (pounds per day)							
	ROG	***CO***	***NO_x***	***SO_x***	***PM_{10}***	***$PM_{2.5}$***	***CO_2***	***CH_4***
Heavy Equipment	*12*	*48*	*97*	*0*	*5*	*4*	*10,237*	*1*
Commuters	*1*	*7*	*1*	*0*	*0*	*0*	*986*	*0*
Fugitive Dust	*0*	*0*	*0*	*0*	*26*	*14*	*0*	*0*
Totals	*13*	*55*	*98*	*0*	*31*	*18*	*10,237*	*1*
Threshold Limits[1]	*75*	*550*	*100*	*150*	*150*	*55*	*N/A*	*N/A*
Localized Thresholds[2]	*N/A*	*20,397*	*855*	*N/A*	*186*	*91*	*N/A*	*N/A*

[1] *Threshold limits developed by SCAQMD to determine significance.*

[2] *Localized significance thresholds developed by SCAQMD to determine localized significance, based on a work area of 2 acres and a 500 meter distance to the nearest receptor.*

Although this analysis was site specific, it is reasonable to assume that the general conclusions for another desalinization facility would be similar.

Air Quality. c. Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Answer: No Impact.

Discussion: The California Air Resources Board has designated the South Coast Air Basin as non-attainment for the State ozone standard, the State PM_{10} standard and the State $PM_{2.5}$ standard. In

addition, the Federal Environmental Protection Agency has designated the South Coast Air Basin as non-attainment for the federal ozone standard and the federal PM_{10} standard.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible air quality impacts and associated mitigation measures of the individual projects.

Air Quality. d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible air quality impacts and associated mitigation measures of the individual projects.

Air Quality. e. Would the project create objectionable odors affecting a substantial number of people?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would

prepare a project-level CEQA document discussing the possible air quality impacts and associated mitigation measures of the individual projects.

Air Quality. f. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible air quality impacts and associated mitigation measures of the individual projects.

No agency has established quantitative significance thresholds for greenhouse gases at this time. However, SCAQMD has suggested significance screening levels of 10,000 MT per year CO_2 equivalents for industrial projects and 3,000 MT per year CO_2 equivalents for commercial/residential projects. Based on the information presented in Table 4-6 in the January 2009 Initial Study and Mitigated Negative Declaration referenced above *(K.S. Dunbar & Associates, Inc., January 2009)*, the total CO_2 emissions from construction of the Perris II Brackish Groundwater Desalter Project would be 1,330 MT per year based on 260 working days in a year. Therefore, the greenhouse gas emissions from construction would be considered less than significant.

Air Quality. g. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible air quality impacts and associated

mitigation measures of the individual projects. None of these projects would conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases.

Biological Resources

Biological Resources. a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Answer: Less Than Significant Impact.

Discussion: During the preparation of the Environmental Assessment/Draft Program Environmental Impact Report for its Recycled Water System Pressurization and Expansion Project *(K.S. Dunbar & Associates, Inc., April 2009)* EMWD searched the California Department of Fish and Game's Natural Diversity Data Base for the Lakeview, Sunnymead, El Casco, Beaumont, Perris and San Jacinto quadrangles to determine the occurrence of special status species in the project area. That project area included the San Jacinto – Upper Pressure Groundwater Management Zone area. A listing of special-status species occurrences in the project area follows:

Special-Status Plants

Common Name	Scientific Name	Status		
		Federal ESA	State CESA	CNPS[1]
smooth tarplant	*Centromadia pungens* spp. *laevis*	None	None	1B.1
Coulter's goldfields	*Lasthenia glabrata* spp. *coulteri*	None	None	1B.1
Payson's jewelflower	*Caulanthus simulans*	None	None	4.2
San Jacinto Valley crownscale	*Atriplex coronata* var. *notatior*	Endangered	None	1B.1
South Coast saltscale	*Atriplex pacifica*	None	None	1B.2
Parish's brittlescale	*Atriplex parishii*	None	None	1B.1
thread-leaved brodiaea	*Brodiaea filifolia*	Threatened	Endangered	1B.1
spreading (Moran's) navarretia	*Navarretia fossalis*	Threatened	None	1B.1
Parry's spinefower	*Chorizanthe parryi* var. *parry*	None	None	3.2

[1] California Native Plant Society
1B.1 = Plants rare, threatened, or endangered in California and elsewhere. Seriously endangered in California.
1B.2 = Plants rare, threatened, or endangered in California and elsewhere. Fairly endangered in California.
3.2 = Plants about which we need more information – a review list. Fairly endangered in California.
4.2 = Plants of limited distribution – Watch list. Fairly endangered in California.

Special-Status Animals

Common Name	Scientific Name	Status		
		Federal ESA	State CESA	CDFG Other
California tiger salamander	*Ambystoma californiense*	Threatened	None	Special Concern
orange-throated whiptail	*Aspidoscelis hyperythrea*	None	None	Special Concern
burrowing owl	*Athene cunicularia*	None	None	Special Concern
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None	None	Watch List
Bell's sage sparrow	*Amphispiza belli belli*	None	None	Watch List

coastal California gnatcatcher	*Polioptila californica californica*	Threatened	None	Special Concern
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	None	None	Special Concern
American badger	*Taxidae taxus*	None	None	Special Concern
Stephens' kangaroo rat)	*Dipodomys stephensi*	Endangered	Threatened	---
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	None	None	Special Concern

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and associated mitigation measures of the individual projects to insure protection of these special-status species.

Biological Resources. b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and associated mitigation measures of the individual projects to insure protection of riparian habitat and other sensitive natural communities.

Biological Resources. c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water

Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and associated mitigation measures of the individual projects to insure protection of these special-status species.

Biological Resources. d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and associated mitigation measures of the individual projects.

Biological Resources. e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and

associated mitigation measures of the individual projects to insure that the individual project does not conflict with such local policies or ordinances.

Biological Resources. f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible biological resources impacts and associated mitigation measures of the individual projects to insure that they are not in conflict with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

Cultural Resources

Cultural Resources. a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible cultural resources impacts and associated mitigation measures of the individual projects to insure that they do not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines.

Cultural Resources. b. Would the project cause a substantial adverse change in the significance of a archeological resource as defined in §15064.5?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible cultural resources impacts and associated mitigation measures of the individual projects to insure that they do not cause a substantial adverse change in the significance of an archeological resource as defined in §15064.5 of the CEQA Guidelines.

Cultural Resources. c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible cultural resources impacts and associated mitigation measures of the individual projects to insure that they do not destroy a unique paleontological resource or site or unique geological feature.

Cultural Resources. d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water

Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible cultural resources impacts and associated mitigation measures of the individual projects to insure that they do not disturb any human remains, including those interred outside of formal cemeteries.

Geology and Soils

Geology and Soils. a. 1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Answer: Less than Significant.

Discussion: The Alquist-Priolo Earthquake Fault Zoning Act identifies special study zones for areas where existing known faults are located. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act also required the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The San Jacinto and Casa Loma Fault Zones within the greater project area are delineated on Alquist-Priolo Earthquake Fault Zoning Maps.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible seismic-related impacts and associated mitigation measures of the individual projects to insure that are designed to withstand any seismic hazards. Seismic conditions in the project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the Riverside County area. Therefore, the seismic-related impacts would be less than significant.

Geology and Soils. a. 2. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Answer: Less than Significant.

Discussion: The California Geological Survey has predicted ground motions (10 percent probability of being exceeded in 50 years) for the project area as a fraction of the acceleration due to gravity (g). The predicted ranges of values of ground motion are shown below. Shown are peak ground acceleration (Pga), spectral acceleration (Sa) at short (0.2 second) and moderately long (1.0 second) periods. Ground motion values are also modified by the local site soil conditions. Each ground motion value is shown for three different site conditions: firm rock (conditions on the boundary between site categories B and C as defined by the building code), soft rock (site category C), and alluvium (site category D).

Ground Motion	Firm Rock	Soft Rock	Alluvium
Pga	0.881	0.881	0.881
Sa 0.2 sec	2.095	2.095	2.095
Sa 1.0 sec	0.827	0.935	1.079

Source: California Geological Survey (www.conservation.ca.gov/cgs, 3/29/09)

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible seismic-related impacts and associated mitigation measures of the individual projects to insure that are designed to withstand any seismic hazards. Seismic conditions in the project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the Riverside County area. Therefore, the seismic-related impacts would be less than significant.

Geology and Soils. a. 3. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Answer: Less than Significant.

Discussion: The potential for liquefaction depends upon potential ground movement during seismic events, soil conditions, and depth to groundwater. The area along the San Jacinto River is known to contain soil conditions and groundwater depths conducive to liquefaction.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible seismic-related impacts and associated mitigation measures of the individual projects to insure that are designed to withstand any seismic hazards. Seismic conditions in the project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the Riverside County area. Therefore, the seismic-related impacts would be less than significant.

Geology and Soils. a. 4. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possible risk of landslides and associated mitigation measures of the individual projects. However, due to the fact that these facilities would be constructed on a level pad they would not be subject to landslides.

Geology and Soils. b. Would the project result in substantial soil erosion or the loss of topsoil?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of soil erosion and associated mitigation measures of the individual projects. During construction, there would be times when

bare soil was exposed to both wind and water erosion. Provisions of the appropriate Permit for Discharges of Storm Water Associated with Construction Activity administered by the California Regional Water Quality Control Board, Santa Ana Region would be complied with. Compliance with this permit would reduce the impacts to a level of less than significant as it would require the use of best management practices such as:

- Prohibit clearing and grading activities until a firm construction schedule is known.
- Stabilize all construction site soils with erosion control measures such as silt fences, matting, etc.
- Control dust during construction by frequent watering.
- Compact disturbed areas as soon as possible.

Geology and Soils. c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of causing on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse and associated mitigation measures of the individual projects.

Geology and Soils. d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would

prepare a project-level CEQA document discussing expansive soils and associated mitigation measures of the individual projects.

Geology and Soils. e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. These facilities would not contain onsite wastewater disposal facilities.

Hazards and Hazardous Materials

Hazards and Hazardous Materials. a. Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water.

Implementation of these projects would not create any significant hazards as a result of the routine transport, use, storage, or disposal of hazardous materials. However, construction of the desalinization facilities, or other facilities utilizing an equivalent technology, would include the temporary use and transport of fuels, lubricating fluids, solvents and other hazardous materials. The contractor would be required to adhere to the requirements of a *Health and Safety Plan* that it would develop for the Project thereby reducing the potential impacts to a level of less than significant.

Operation of desalinization facilities would require the use of various chemicals. It is anticipated that the desalinization facility could include a chlorine generator which would produce a solution of hypochlorite for use during pretreatment. Additional chemicals required for the treatment process and for maintenance of reverse osmosis facilities could include sulfuric acid, sodium hydroxide, aqueous ammonia, sodium hydroxide, and an antiscalant.

EMWD has extensive experience in the operation of water and wastewater facilities which utilize chemicals as described above. The use, transport, storage and disposal of all chemicals would be in compliance with all federal, State and local laws. This includes Riverside County Ordinance 651, which has been adopted to implement Chapter 6.95 of the Health and Safety Code (Hazardous Materials Release Response Plans and Inventory Law). Compliance with Ordinance No. 651 would require EMWD to update its Business Emergency Plan to include the additional chemicals associated with any proposed project. This would serve to minimize any impact in case of an accidental release of hazardous materials.

Hazards and Hazardous Materials. b. Would the project create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water.

Construction equipment used to construct any project would have the potential to release oils, grease, solvents and other finishing products through accidental spills. However, strict adherence to the Health and Safety Plan that would be developed for any project would insure that the impacts would be less than significant.

Anticipated chemicals required during the treatment process at the desalinization, or other facility utilizing an equivalent technology, are described above. While chlorine and sulfuric acid are classified as acutely hazardous under federal regulations, concentrations used during the treatment process would fall below the thresholds subject to regulation under the California Accidental Release Prevention Program *(EMWD, 1999).* Further, any project would comply with all federal, State and local laws regulating hazardous materials, including Riverside County Ordinance 651.

Hazards and Hazardous Materials. c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the impacts of handling hazardous substances in proximity to any schools and associated mitigation measures of the individual projects.

Hazards and Hazardous Materials. d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Answer: No Impact.

Discussion: Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases include:

- National Priorities List (NPL)
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- Hazardous Materials Response Plans and Inventory
- Envirostor
- Leaking Underground Storage Tank Information System (LUSTIS)
- Site Mitigation Program Property Database (formerly CalSites)

- Hazardous Waste and Substances Sites List (Cortese)
- Solid Waste Information System (SWIS)

These databases were searched for the presence of hazardous materials sites within the San Jacinto – Upper Pressure Groundwater Management Zone. Those lists revealed the presence of several LUSTIS sites within the project area.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the impacts of hazardous materials sites and associated mitigation measures of the individual projects.

Hazards and Hazardous Materials. e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and if so, would the project result in a safety hazard for people residing or working in the project area?

Answer: No Impact.

Discussion: The San Jacinto – Upper Pressure Groundwater Management Zone is not within an airport land use plan or within two miles of a public airport or public use airport.

Hazards and Hazardous Materials. f. Would the project be within the vicinity of a private airstrip, and if so, would the project result in a safety hazard for people residing or working in the project area?

Answer: No Impact.

Discussion: The San Jacinto – Upper Pressure Groundwater Management Zone is not within the vicinity of a private airstrip.

Hazards and Hazardous Materials. g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water

Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing any adopted emergency response plan or emergency evacuation plan that might be impacted by implementation of the individual projects and any required associated mitigation measures.

Hazards and Hazardous Materials. h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of wildland fires and associated mitigation measures. Generally, it is believed that wildland fires will not be a concern as the facilities would undoubtedly be located in an urban setting.

Hydrology and Water Quality

Hydrology and Water Quality. a. Would the project violate any water quality standards or waste discharge requirements?

Answer: Less than Significant.

Discussion: The Basin Plan was amended on January 24, 2004 when the Regional Board adopted Order No. R-8-2004-0001. That order became effective in December 2004 after approval by the State Water Board and U.S. Environmental Protection Agency. That amendment included the following water quality objectives for the San Jacinto – Upper Pressure Groundwater Management Zone:

TDS	340 mg/l	TIN	1.4 mg/l

However, based on groundwater monitoring studies in the San Jacinto – Upper Pressure Groundwater Management Zone the existing quality (2006) is as follows:

TDS	350 mg/l	TIN	1.6 mg/l

As can be seen by the above, there is no assimilative capacity in the San Jacinto – Upper Pressure Groundwater Management Zone for either of these constituents. As shown on Figure 6, it is anticipated that the quality of the San Jacinto – Upper Pressure Groundwater Management Zone will continue to deteriorate in the future under existing conditions (i.e., the IRRP and Recycled Water In-Lieu Project do not occur, groundwater production is reduced according to the management plan, and remaining water demand is satisfied by treating imported water).

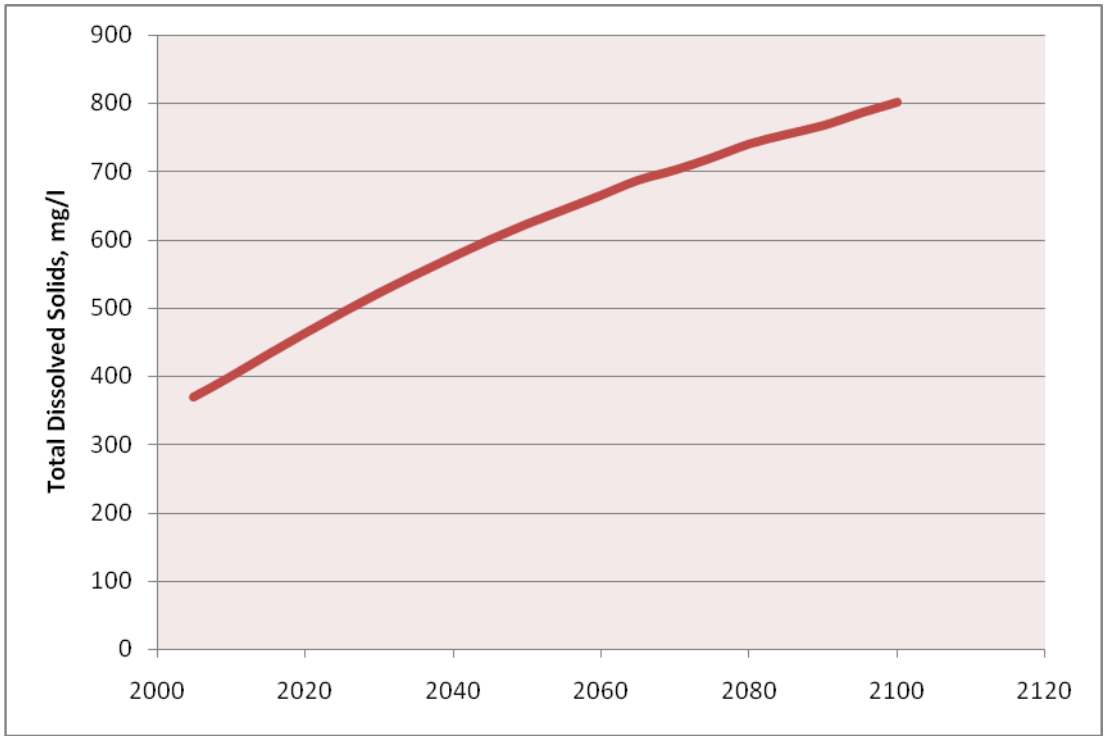

Figure 6 San Jacinto – Upper Pressure Groundwater Management Zone, Predicted TDS Values No Project Alternative

As can be seen on Figure 6, the TDS concentration would be expected to increase from its existing level of 350 mg/l to approximately 500 mg/l by 2026 and to approximately 800 mg/l by 2100.

Should the Regional Board approve EMWD's proposed water quality objectives of 500 mg/l TDS and 7 mg/l TIN for the San Jacinto – Upper Pressure Groundwater Management Zone, and assuming that the IRRP and Recycled Water In-Lieu Project were implemented and the Hemet Water

Filtration Plant is online, it is anticipated that the TDS in the groundwater would increase from its existing 350 mg/l to about 500 mg/l in 2023 and to about 740 mg/l in 2100 (see Figure 7).

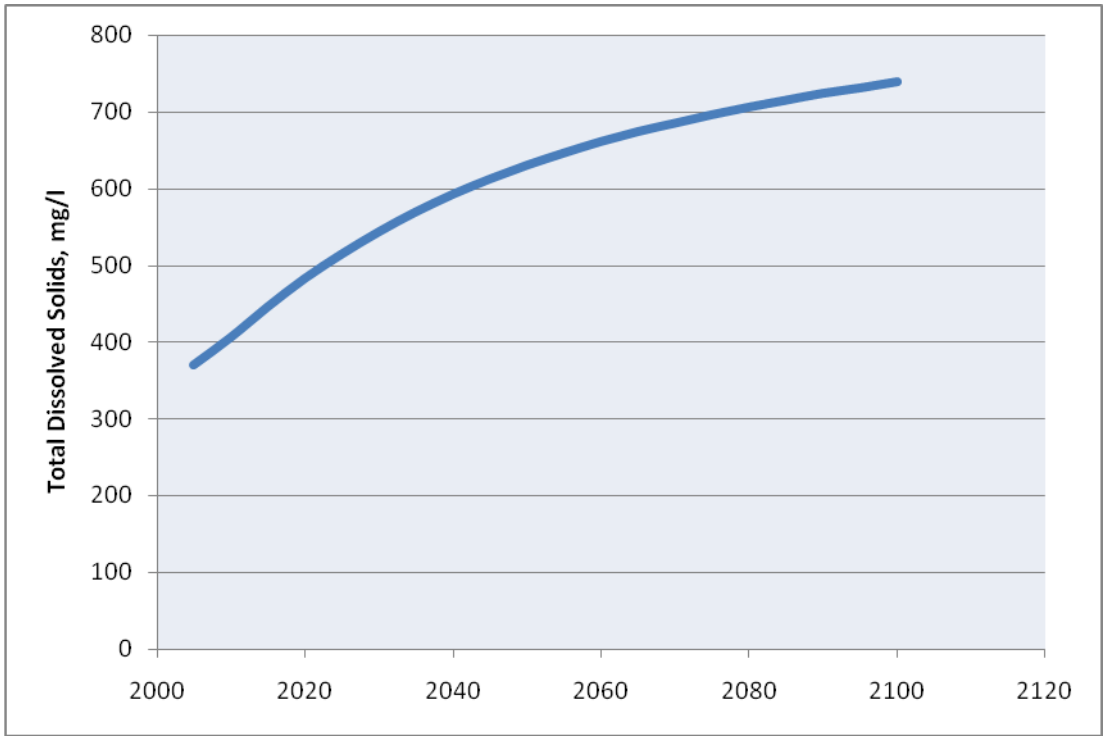

Figure 7 San Jacinto – Upper Pressure Groundwater Management Zone, Predicted TDS Values Selected Project Alternative

A comparison of the predicted TDS values with and without the project is provided on Figure 8.

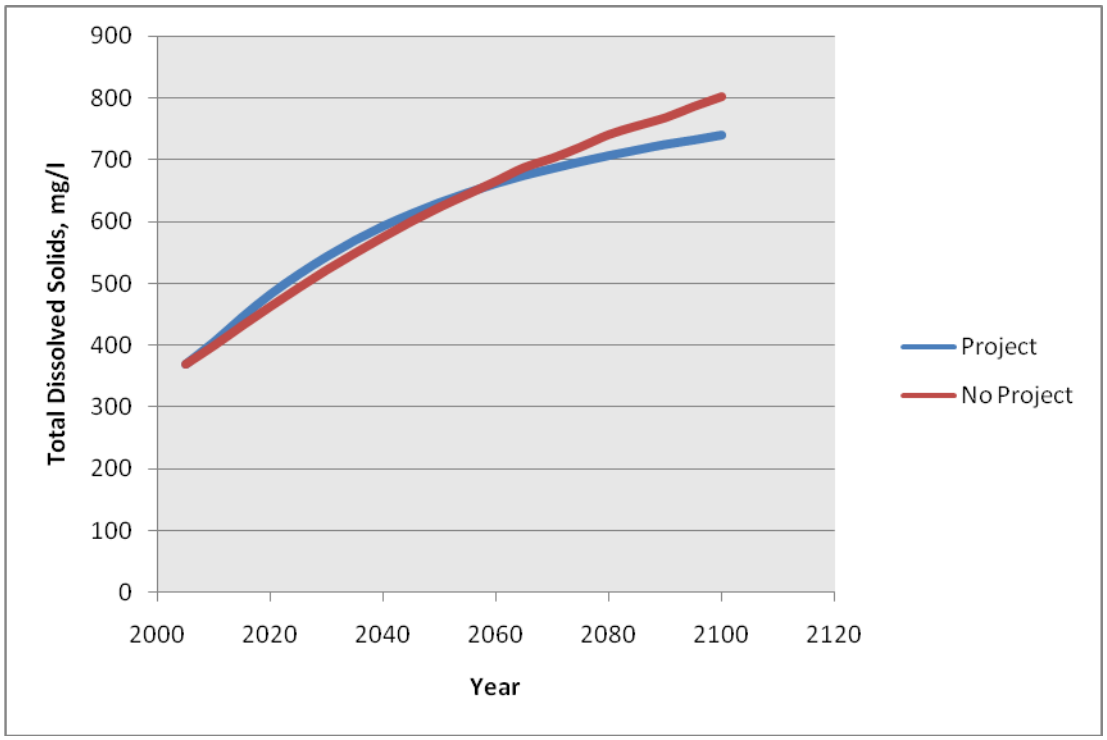

Figure 8 San Jacinto – Upper Pressure Groundwater Management Zone, Predicted TDS Values With and Without the Project

As shown by the above discussion and the information presented on Figures 6 through 8, the TDS in the San Jacinto – Upper Pressure Groundwater Management Zone will degrade in the future whether or the not the project is implemented. However, as previously stated, should the Regional Board adopt EMWD's proposed objectives, EMWD will commit to the following environmental commitments:

- Implement the Hemet/San Jacinto Water Management Plan.
- Develop and Implement a Salinity Management Plan.
- Estimate Ambient Groundwater Quality and Wasteload Allocation.
- Conduct a Groundwater Monitoring Program.

Adoption of the proposed water quality objectives for TDS and TIN in addition to the above environmental commitments will promote the maximum beneficial use of the waters of the State and protect downstream water quality.

EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water.

The desalination process would result in up to 1 mgd of liquid brine produced as a byproduct. Liquid brine is classified as a "designated waste" under Title 23 of the California Code of Regulations. Title 23 defines a designated waste as "… nonhazardous waste which consist of or contains pollutants which, under ambient environmental conditions at the waste management unit could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of surface waters of the State."

The liquid brine would be transported offsite via an extension of the existing brine line connecting to the Sun City RWRF site. The liquid brine would ultimately be conveyed by EMWD's Reach 4 brine line to the Temescal Valley Regional Interceptor which connects to the Santa Ana River Interceptor (SARI) which conveys brines to a wastewater treatment facility in Orange County owned and operated by the Orange County Sanitation District (OCSD).

EMWD has purchased 5.946 mgd of capacity in the SARI and 3.548 mgd capacity in OCSD's treatment and disposal capacity. These capacities are sufficient to cover EMWD's current needs. Although there is some excess capacity purchased, the proposed future desalinization system might require EMWD to purchase additional capacity in this system.

As previously stated, the TIN/TDS Task Force determined that the use protection threshold for TIN in groundwater was 8 mg/l. The proposed objective and ambient concentrations are lower than 8 mg/l and are therefore protective of existing and future beneficial uses. EMWD produces recycled water with a 12-month average TIN concentration of 10 mg/l. A recent study titled *Quantification of Nitrogen Removal Under Recycled Water Ponds (Daniel B. Stephens & Associates, Inc., 2007)* demonstrated that total nitrogen losses under the Alessandro Recycled Water Ponds in the San Jacinto – Upper Pressure Groundwater Management Zone averaged 64 percent at a depth of 29 feet. Based on the results of this study, the Regional Board has approved the use of a TIN uptake rate of 60 percent. Applying this uptake rate as stated in the Basin Plan would result in a TIN discharge limit of 4 mg/l [TIN = 1.6 / 1.0 – 0.6) = 4.0 mg/l]. The TIN concentration of the recycled water of 10 mg/l exceeds this limit; however, the TIN would be effectively mitigated by the recharge of SWP water into the San Jacinto – Upper Pressure Groundwater Management Zone.

Hydrology and Water Quality. b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the Hemet/San Jacinto Water Management Plan includes the recharge of State Water Project water into the San Jacinto – Upper Pressure Groundwater Management Zone. As shown on Figure 9, this would greatly increase the amount of water in storage in the San Jacinto – Upper Pressure Management Zone.

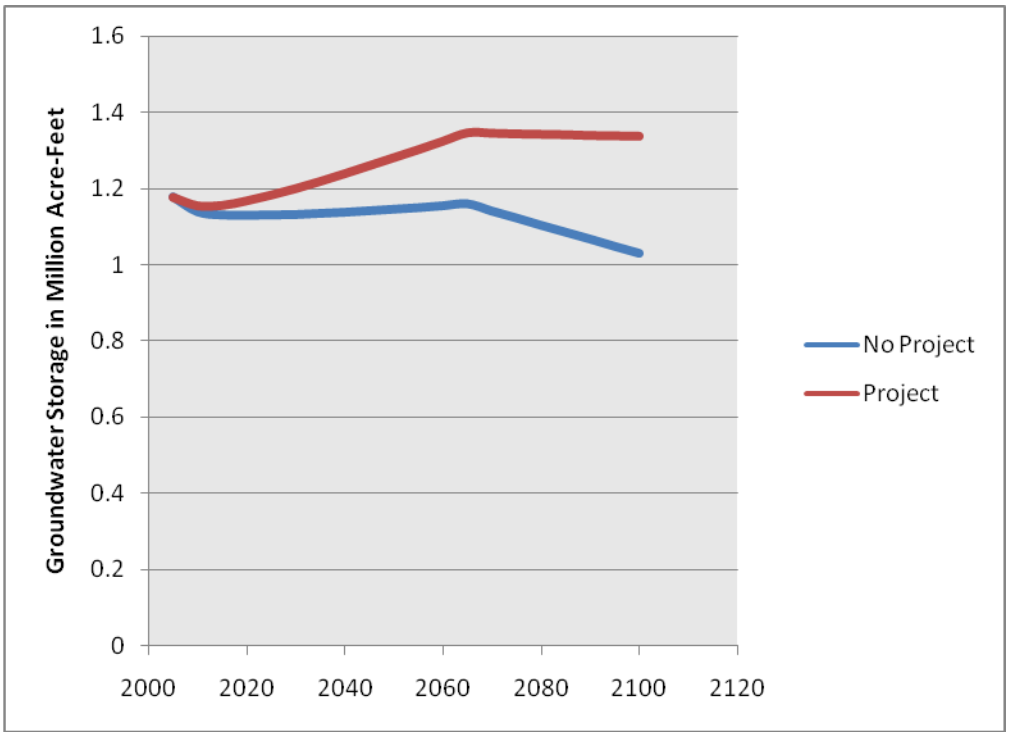

Figure 9 Comparison of Groundwater Storage in the San Jacinto – Upper Pressure Groundwater Management Zone with and without the Project

As shown on Figure 9, without the project, the amount of groundwater storage steadily drops through the year 2060 where it levels out at about 1.15 million acre-feet. However, with the project, the amount of groundwater in storage steadily increases through the year 2060 where it levels out at about 1.35 million acre-feet through the year 2100.

As shown previously on Figure 2, the location of the imported water recharge area is several miles upstream and upgradient of the proposed recycled water in-lieu project. The recycled water irrigation project is located in the furthest downstream location of the basin. The recycled water is applied at the surface level in an area of known natural clay layers that will minimize the vertical migration of the irrigated recycled water. Based on the downstream location of the reuse site and the clay soils in the area, the recycled water used in this area should not impact the imported recharge area nor the local production wells.

Hydrology and Water Quality. c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of altering drainage patterns and associated mitigation measures at the individual project sites.

Hydrology and Water Quality. d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the

salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of altering the drainage pattern of the individual sites and any required mitigation measures.

Hydrology and Water Quality. e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of contributing runoff water which would exceed the capacity of storm water drainage facilities at the individual sites and any required mitigation measures.

Hydrology and Water Quality. f. Would the project otherwise substantially degrade water quality?

Answer: Less than Significant.

Discussion: The purpose of the project is to allow the maximum beneficial use of the waters of the State by allowing the TDS and TIN in the San Jacinto – Upper Pressure Groundwater Management Zone to slightly increase over the existing levels of 350 mg/l of TDS and 1.6 mg/l of TIN. The proposed objectives are 500 mg/l of TDS and 7 mg/l of TIN.

One of EMWD's environmental commitments includes development and implementation of a salinity management program. That program will include TDS reduction strategies to protect beneficial uses when the ambient TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone approaches the maximum benefit based objective and to meet waste discharge requirements when the TDS concentration in the San Jacinto Valley Regional Water Reclamation Facility effluent monotonically approaches 650 mg/l. When the volume-weighted TDS concentration in the San Jacinto – Upper Pressure Groundwater Management Zone rises to 490 mg/l, EMWD will develop a plan either to reduce the TDS concentration in the source water and serve this water to its customers and/or reduce the TDS concentration in recycled water. This plan

will include the construction and operation of desalinization facilities or the use of an equivalent technology to reduce the TDS concentration in the source water and/or recycled water. Therefore, this would be considered a less-than-significant impact.

As shown previously on Figure 2, the location of the imported water recharge area is several miles upstream and upgradient of the proposed recycled water in-lieu project. The recycled water irrigation project is located in the furthest downstream location of the basin. The recycled water is applied at the surface level in an area of known natural clay layers that will minimize the vertical migration of the irrigated recycled water. Based on the downstream location of the reuse site and the clay soils in the area, the recycled water used in this area should not impact the water quality in the San Jacinto – Upper Pressure Groundwater Management Zone.

Hydrology and Water Quality. g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Answer: No Impact.

Discussion: The project does not include housing.

Hydrology and Water Quality. h. Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of placing structures within a 100-year flood hazard area and any required mitigation measures for the individual projects.

Hydrology and Water Quality. i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Answer: No Impact.

Discussion: The project does not include the construction of levees or dams.

Hydrology and Water Quality. j. Would the project be inundated by seiche, tsunami, or mudflow?

Answer: No Impact.

Discussion: There are no water bodies in the project area that would produce seiches, tsunamis or mudflows.

Land Use and Planning

Land Use and Planning. a. Would the project physically divide an established community?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. These facilities usually require a project site of less than 5 acres. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of physically dividing an established community and any required mitigation measures for the individual projects.

Land Use and Planning. b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing applicable land use plans, policies or regulations of agencies having jurisdiction over the project and any required mitigation measures for the

individual projects. Although, as a public agency EMWD is not subject to local planning regulations, it does have a history of complying with them.

Land Use and Planning. c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the applicability of the Western Riverside County Multiple Species Habitat Conservation Plan to the individual project sites and any required mitigation measures.

Mineral Resources

Mineral Resources. a. Would the project result in the loss of availability of a known resource that would be of value to the region and the residents of the state?

Answer: No Impact.

Discussion: There are no known mineral resources in the project area that would be of value to the region and the residents of the State.

Mineral Resources. b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Answer: No Impact.

Discussion: There are no locally-important mineral resource recovery sites delineated on the applicable local general plan, specific plan or other land use plan in the project area.

Noise

Noise. a. Would the project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the provisions of the Riverside County's Noise Ordinance applicable to the individual projects and the provisions of the City of San Jacinto's Noise Ordinance applicable to the individual projects and any required mitigation measures.

Noise. b. Would the project expose persons to or generate excessive groundbourne vibration or groundbourne noise levels?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing groundbourne vibration and noise associated with the individual projects and any required mitigation. As a general rule, groundbourne vibration will not be felt by receptors more than 50 feet from the project site.

Noise. c. Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the possibility of a substantial permanent increase in ambient noise levels and any required mitigation. However, based on the Initial Study for the Perris II Brackish Groundwater Desalter Project *(K.S. Dunbar & Associates, Inc., January 2009)*, the noise levels from these facilities would be approximately 60 dB(A) at a distance of 50 feet from the desalinization facilities. Therefore, there should be no permanent increase in ambient noise levels above levels existing without the project.

Noise. d. Would the project result in a substantial temporary or periodic increase in noise levels in the project vicinity above levels existing without the project?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing temporary and periodic increases in ambient noise levels and any required mitigation. However, based on the Initial Study for the Perris II Brackish Groundwater Desalter Project *(K.S. Dunbar & Associates, Inc., January 2009)*, the noise levels from construction of these facilities would range from approximately 72 to 89 dB(A) at a distance of 50 feet from the equipment being used. These potential impacts can be mitigated to a less-than-significant level.

Noise. e. Would the project be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, and if so, would the project expose people residing or working in the project area to excessive noise levels?

Answer: No Impact.

Discussion: The San Jacinto – Upper Pressure Groundwater Management Zone is not within an airport land use plan or within two miles of a public airport or public use airport.

Noise. f. Would the project be located within the vicinity of a private airstrip, and if so, would the project expose people residing or working in the project area to excessive noise levels?

Answer: No Impact.

Discussion: The San Jacinto – Upper Pressure Groundwater Management Zone is not within the vicinity of a private airstrip.

Population and Housing

Population and Housing. a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Answer: Less than Significant.

Discussion: As previously stated, Riverside County, City of San Jacinto and City of Hemet have determined a need for housing in their respective areas and have adopted general and specific plans that show substantial increases in population and housing in the San Jacinto – Upper Pressure Groundwater Management Zone as the land is converted from agricultural uses to urban uses. All of these plans have been approved and have certified environmental documents. Implementation of the project would accommodate this growth as it would improve the reliability of water supplies for future growth in the region.

Population and Housing. b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Answer: No Impact.

Discussion: Implementation of the project would not displace substantial numbers of existing housing.

Population and Housing. c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Answer: No Impact.

Discussion: Implementation of the project would not displace substantial numbers of people.

Public Services

Public Services. a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?

Answer: No Impact.

Discussion: Implementation of the project would not result in the need for additional fire protection services.

Public Services. a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?

Answer: No Impact.

Discussion: Implementation of the project would not result in the need for additional police protection services.

Public Services. a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?

Answer: No Impact.

Discussion: Implementation of the project would not result in a need for additional schools.

Public Services. a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

Answer: No Impact.

Discussion: Implementation of the project would not result in a need for additional park facilities.

Public Services. a.5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public services?

Answer: No Impact.

Discussion: Implementation of the project would not result in a need for other public services.

Recreation

Recreation. a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Answer: No Impact.

Discussion: Implementation of the project would not increase the use of existing park or recreational facilities.

Recreation. b. Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Answer: No Impact.

Discussion: The project does not include recreational facilities.

Transportation/Traffic

Transportation/Traffic. a. Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would

prepare a project-level CEQA document discussing disruption of traffic flows and increases in traffic congestion and any required mitigation.

Construction of these facilities would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. However, construction of the proposed pipelines associated with the desalinization facilities has the potential to cause impacts to traffic circulation and access as a result of decreased road capacity on local streets during the construction period, resulting in temporary disruptions of traffic flows and increases in traffic congestion. As such, a potential for short-term impacts exists. Trenching activities would also temporarily damage roads; however, trenches would be patched or repaved following construction. However, based on the Initial Study for the Perris II Brackish Groundwater Desalter Project *(K.S. Dunbar & Associates, Inc., January 2009)*, these potential impacts can be mitigated to a less-than-significant level.

Transportation/Traffic. b. Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the level of service standards on affected streets. Construction and operation of these facilities would not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

Transportation/Traffic. c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Answer: No Impact.

Discussion: Implementation of the project would not result in a change in air traffic patterns.

Transportation/Traffic. d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Answer: No Impact.

Discussion: Implementation of the project would not substantially increase hazards due to a design feature or incompatible uses.

Transportation/Traffic. e. Would the project result in inadequate emergency access?

Answer: No Impact.

Discussion: Implementation of the project would not result in inadequate emergency access.

Transportation/Traffic. f. Would the project result in inadequate parking capacity?

Answer: No Impact.

Discussion: Implementation of the project would not result in inadequate parking capacity.

Transportation/Traffic. g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Answer: No Impact.

Discussion: Implementation of the project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

Utilities and Service Systems

Utilities and Service Systems. a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Answer: No Impact.

Discussion: Adherence to EMWD's salinity management plan would insure that the effluent from the San Jacinto Valley Regional Water Reclamation Facility met the wastewater treatment requirements of the California Regional Water Quality Control Board, Santa Ana Region.

Utilities and Service Systems. b. Would the project require or result in the construction of new water or wastewater treatment facilities, the construction of which could cause significant environmental effects?

Answer: Less than Significant.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the potential impacts and required mitigation measures associated with each individual project.

Utilities and Service Systems. c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Answer: No Impact.

Discussion: Implementation of the project would not require the construction of new storm water drainage facilities.

Utilities and Service Systems. d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Answer: No Impact.

Discussion: EMWD has sufficient water supplies to serve the project without the need for new or expanded entitlements.

Utilities and Service Systems. e. Would the project result in a determination by the wastewater treatment provider that serves or may serve the project area that it has adequate capacity to serve the projected demand in addition to the provider's existing communities?

Answer: No Impact.

Discussion: EMWD has agreed to implement the following environmental commitments along with the proposed BPA for TDS and TIN objectives: 1) implement the Hemet/San Jacinto Water Management Plan, 2) develop and implement a salinity management program, 3) estimate ambient groundwater quality and wasteload allocations, and 4) conduct a groundwater monitoring program in the San Jacinto – Upper Pressure Groundwater Management Zone. Implementation of the salinity management program could result in the construction of desalinization facilities or other facilities utilizing an equivalent technology to reduce the TDS concentration in the source water or recycled water. Should it be necessary to construct these facilities in the future, EMWD would prepare a project-level CEQA document discussing the need for additional treatment facilities and

required mitigation measures associated with each individual project. The desalinization facilities would produce liquid brine which would be disposed of via EMWD's Reach 16 brine line which discharges to the Santa Ana Watershed Project Authority's brine line near Lake Elsinore and subsequently to the Santa Ana River Interceptor.

Utilities and Service Systems. f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Answer: No Impact.

Discussion: The project would not generate solid waste.

Utilities and Service Systems. g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Answer: No Impact.

Discussion: The project would not generate solid waste.

Mandatory Findings of Significance

Mandatory Findings of Significance. a. Would the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Answer: No Impact.

Discussion: Implementation of the Basin Plan Amendment and EMWD's environmental commitments does not have the potential to significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Therefore, no impacts are anticipated.

Mandatory Findings of Significance. b. Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Answer: No Impact.

Discussion: Implementation of the Basin Plan Amendment and EMWD's environmental commitments does not have impacts that are individually limited, but cumulatively considerable. Therefore, no impacts are anticipated.

Mandatory Findings of Significance. c. Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Answer: No Impact.

Discussion: Implementation of the Basin Plan Amendment and EMWD's environmental commitments does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. Therefore, no impacts are anticipated.

9 Reasonable Alternatives to the Proposed Activity

The Basin Plan Amendment does not result in any significant or potentially significant impacts to the environment. Therefore, no alternatives to the Basin Plan Amendment are proposed because they are not necessary to avoid or reduce any significant or potentially significant impacts. An analysis of alternatives to the project is not required when review of the project shows that the project would not have any significant or potentially significant effects on the environment. *[14 CCR §15252(a)(2)(B)]*

However, as pointed out on page 10 of this document, EMWD did study the following four alternative cases in preparing its proposed water quality objectives for TDS and TIN:

Case 1 No project scenario: the IRRP and Recycled Water In-Lieu Project do not occur. Groundwater production is reduced according to the Management Plan and remaining water demand is satisfied by treated imported water.

Case 2 The IRRP does not occur and the Recycled Water In-Lieu Project is online. The recycled water TDS concentration is 575 mg/l. Groundwater production is reduced according to the Management Plan and remaining water demand is satisfied by treated imported water.

Case 3 SWP water is used for groundwater replenishment and the Recycled In-Lieu Project is online. The Hemet Water Filtration Plant is constructed and treated imported water is served in lieu of native groundwater.

Case 4 Same as Case 3; however, the TDS concentration of the recycled water is 650 mg/l.

A comparison of the TDS concentration time histories for the four cases was provided on Figure 3.

10 Preliminary Staff Determination

x	The proposed project COULD NOT have a significant effect on the environment, and, therefore, no alternatives or mitigation measures are proposed.
	The proposed project MAY have a significant or potentially significant effect on the environment, and therefore alternatives and mitigation measures have been evaluated.

_____ _____

Signature Date

11 References

Air Resources Board. 2000. Risk Guidance for the Permitting of New Stationary Diesel-Fueled Engines.

California Department of Transportation. *List of Scenic Highways in California*. www.dot.ca.gov, 03/29/09.

California Department of Transportation. 1980. Traffic Manual.

California Department of Toxic Substances Control. 2009. www.dtsc.ca.gov. 03/29/09.

California Geological Survey. 2009. Alquist-Priolo. www.consvr.ca.gov. 03/29/09.

California Geological Survey, 2009. Probabilistic Ground Motion Map. www.consvr.ca.gov. 03/29/09.

California Geological Survey. 2009. Seismic Hazards Map. www.conservation.ca.gov. 03/29/09.

California Occupational Safety and Health Administration. Yearly Average Equivalent Sound Identified to Protect the Public Health and Welfare.

California Regional Water Quality Control Board, Santa Ana Region. 2008. Water Quality Control Plan for the Santa Ana River Basin. February.

City of Hemet. 2007. *General Plan*. July.

City of San Jacinto. 2006. *General Plan*. January.

County of Riverside. 2003. San Jacinto Valley Area Plan. October 7.

Daniel B. Stephens & Associates, Inc., 2007. Quantification of Nitrogen Removal Under Recycled Water Ponds.

Environmental Protection Agency. 2008 www.epa.gov. 7/24/08.

James M. Montgomery. 1991. Nitrogen and TDS Studies, Upper Santa Ana Watershed.

K.S. Dunbar & Associates, Inc. 2009. Final Subsequent Environmental Assessment/Initial Study and Mitigated Negative Declaration, Perris II Brackish Groundwater Desalter, Eastern Municipal Water District and U.S. Army Corps of Engineers, State Clearinghouse No. 2005114006. January.

K.S. Dunbar & Associates, Inc., 2009. Environmental Assessment/Draft Program Environmental Impact Report, Recycled Water System Pressurization and Expansion Project, Eastern Municipal Water District and U.S. Bureau of Reclamation, State Clearinghouse No. 2008011108. April.

PZL, Inc. 2007. Final Mitigated Negative Declaration and Mitigation and Monitoring Program for San Jacinto Agricultural In-Lieu Water Supply Project, Eastern Municipal Water District, State Clearinghouse No. 2007011020. February.

SCAQMD. 2006. Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds. October.

SCAQMD. 2007. *Air Quality Management Plan.*

SCAQMD, 1999. CEQA Air Quality Handbook. www.aqmd.gov. 10/18/06.

SCAGMD. 2008. Localized Significance Thresholds. July. www.aqmd.gov. 8/08/08

SCAQMD. 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October.

State of California. *Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.* July 27, 2007.

State Water Resources Control Board. 2008 www.waterboards.ca.gov. 7/24/08.

Thomas Brothers. 2008. The Thomas Guide San Bernardino and Riverside Counties.

Uniform Building Code. 1994.

12 Acronyms and Abbreviations

AAM	annual arithmetic mean
afa	acre-feet per annum
AGM	annual geometric mean
BPA	Basin Plan Amendment
Caltrans	California Department of Transportation

CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CRWQCB, SAR	California Regional Water Quality Control Board, Santa Ana Region
dB(A)	decibels on the A-scale
DPEIR	Draft Program Environmental Impact Report
DFG	California Department of Fish and Game
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
KSD&A	K.S. Dunbar & Associates, Inc.
Ldn	day-night average sound level
Leq	noise equivalent
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan

NO_x	oxides of nitrogen
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ROG	reactive organic gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SO_x	oxides of sulfur
State Water Board	State Water Resources Control Board
TDS	total dissolved solids
TIN	total inorganic nitrogen